

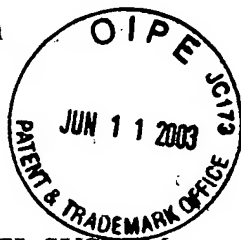
#15
6/19/03**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: Lakram

Serial No. 10/055,331

Filed: 01/25/2002

For: UNSINKABLE VESSEL SYSTEM



PATENTS

Group Art Unit: 3617

Examiner: Basinger

BRIEF ON APPEAL**1) Real Party in Interest**

The real party in interest is the inventor/appellant.

2) Related Appeals and Interferences

There are no other related appeals or interferences.

3) Status of Claims

Claims 20-37 are all the claims in this case. Claims 20-24 and 26-28 are rejected.

Claims 25 and 29-37 are objected to. Claims 20-24 and 26-28 are on appeal.

4) Status of Amendments

An amendment was filed by the appellant subsequent to the final rejection. This amendment was denied entry.

5) Summary of Invention

The invention will be described only as it relates to the claims on appeal.

This invention may be best understood with reference to Figs. 14, 26, 31, and 37.

This invention relates to a system for rendering vessels unsinkable (paragraph 51).

To be a suitable vessel for this system, the vessel must have an engine, a hull, and a ceiling (Fig. 14). The system is made up of an air compressor which feeds air to a compression chamber, a compression chamber which feeds air under pressure to at least

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one inflatable airbag and at least one inflatable airbag which is stored on the ceiling of the hull (paragraph 50 and Fig. 31). Preferably, the compressor contains overlapping impeller blades (paragraph 52). Preferably, each bag is connected to a slotted track which keeps the airbag in place while the airbag is expanding (paragraph 60). Also, the air compressor may be connected by an axle to a clutch device which is attached to an axle from the vessel's engine (paragraph 56). In a preferred embodiment, a diaphragm makes up part of one wall of the compression chamber and a time valve opens and closes at pre-determined intervals to allow pressurized air to be stored and released into the airbags (paragraph 55). The system may be started manually or automatically.

6) Issues

a) Whether claim 28 is properly rejected under the second paragraph of 35 USC 112.

b) Whether claim 20 is properly rejected under 35 USC 102(b) as being anticipated by Ryczek.

c) Whether claims 21-23 are properly rejected under 35 USC 103(a) as being unpatentable over Ryczek in view of Tuffier.

d) Whether claim 24 is properly rejected under 35 USC 103(a) as being unpatentable over Ryczek in view of Beck et al.

e) Whether claim 26 is properly rejected under 35 USC 103(a) as being unpatentable over Ryczek in view of Day.

f) Whether claim 27 is properly rejected under 35 USC 103(a) as being unpatentable over Ryczek in view of Gilbert.

7) Grouping of Claims

Claims 20 and 24 are considered as a single group and are considered separately.

The patentability of this group will stand or fall with the patentability of claim 20.

Claim 21 is considered separately.

Claim 22 is considered separately.

Claim 23 is considered separately.

Claim 26 is considered separately.

Claim 27 is considered separately.

8) Argument

Claim 28 is rejected under the second paragraph of 35 USC 112.

It is the Examiner's position that claim 28 is ambiguous in the combined terminology "at least one compression chamber" and "each compression chamber". It is the Examiner's position that the term "at least one" may read on one whereas "each" implies more than one.

It is considered that the Examiner's positions are in error. An earlier edition of the M.P.E.P. than that currently used by the PTO stated the official PTO position on rejections under the second paragraph of 35 USC 112 to be:

The examiner has the responsibility to make sure that the wording of the claims is sufficiently definite to reasonably determine the scope. It is applicant's responsibility to select proper wording of the claim, except to the extent that the selection of words makes the claims indefinite. Under no circumstances should a claim be rejected merely because the examiner prefers a different choice of wording. (Emphasis in original.)

Section 2173.02 of the current M.P.E.P. states:

The examiner's focus during examination of claims for compliance with the requirement of definiteness of 35 USC 112, second paragraph is whether the claim meets the threshold

requirements of clarity and precision, not whether more suitable language or modes of expression are available.

It appears that in the present situation, the Examiner has rejected claim 28 in which the claimed subject matter is clearly expressed for no reason other than the Examiner prefers a different choice of wording.

The decision of Ex parte Wu, 10 USPQ2d 2031, 2033 (BPAI 1989) states:

In rejecting a claim under the second paragraph of 35 USC 112, it is incumbent on the examiner to establish that one of ordinary skill in the pertinent art, when reading the claims in light of the supporting specification, would not have been able to ascertain with a reasonable degree of precision and particularity the particular area set out and circumscribed by the claims.

The Examiner has not addressed the issue of whether one skilled in the art would be able to ascertain with a reasonable degree of precision and particularity the particular area set out and circumscribed by the claims. Clearly, the Examiner has not established that one skilled in the art would not have been able to ascertain the scope of the claims.

The following discussion addresses the merits of the above rejections under 35 USC 112(2).

The term “each” is intended to be used in the following sense. 1. **each** -- (used of count nouns) every one considered individually, as found in Wordnet1.7; and **EACH**, a. Every one of any number separately considered or treated, as found in Webster’s 1828 Dictionary.

Should the language in question be determined by the Board to be unacceptable, the Examiner is given authorization to amend claim 28 to recite the more stilted term, “said at least one” suggested by the Examiner.

The Examiner takes the position that the term “the inflatable airbags” in the last line of claim 28 has no clear antecedent basis.

Section 706.03(d) of the M.P.E.P. instructs the Examiners that the form paragraph relating to a rejection based on lack of antecedent basis in the claim (and, presumably, the rejection) should be only be used in aggravated situations where the lack of antecedent basis makes the scope of the claim indeterminate.

Thus, the correctness of this rejection is to be tested by determining whether the alleged lack of antecedent basis make the scope of the claim indeterminate. Claim 28 calls for “the inflatable airbags”. The expression “at least one inflatable airbag” found in the last line of claim 20 is deemed to provide adequate antecedent basis for this term, and it is urged that the expression in question does not render the scope of the claim indeterminate.

In view of the above, it is considered that claim 28 complies with the second paragraph of 35 USC 112 and the rejection should be reversed.

The rejection of claim 20 under 35 USC 102(b) will now be discussed.

It is basic patent law that in order to anticipate a claim, the reference must describe all elements (limitations) of the claims and that a prior art reference does not anticipate a claim unless its disclosure is in such full, clear, and exact terms as to enable any person skilled in the art to which the invention relates to practice it. A mere suggestion in the reference is not enough. See, in this regard, the decisions of *Monsanto Co. v. Dawson Chemical Co., Inc.* 165 USPQ 560 (Dist. Ct. S.D. Texas, Houston Div. 1970) and *In re Spada*, 15 USPQ2d 1655 (Fed. Cir. 1990).

In the following remarks, the reference numerals refer to those found in the Ryczek patent. The Examiner takes the position that the air compressor is 15, the compression chamber is 16, and the inflatable airbag stored on the ceiling of the hull is either one of the airbags 22 on the ceilings of compartments 12 and 13.

This rejection is considered to be in error. While there is no argument that the reference shows an air compressor, a compression chamber, and an airbag, it is Appellant's position that the airbag of the reference is not stored on the ceiling of the hull. The airbags of the reference are stored in casings provided with covers. A casing rests upon the floor of the compartment in which it is located. When activated, the airbag of the reference will expand upwardly. This is in contrast to the requirements of the claim. The claim requires that the airbag will be stored on the ceiling of the hull, not the floor. Reading the claim in light of the supporting disclosure, it is evident that the airbag of the claim will expand downwardly. While the Examiner is permitted to interpret claim language as broadly as is reasonably possible, the Examiner may not misrepresent clear language. Thus, it is urged that the rejection of claim 20 is in error.

The rejection of claim 21 will now be discussed.

A determination as to whether a valid rejection has been made begins with ascertaining that the PTO policy regarding the guidelines laid down by the Supreme Court in *Graham v. John Deere*, 148 USPQ 459 (Sup. Ct. 1966) has been carried out. The PTO policy is simply that patent Examiners carry the responsibility of making sure that the standard of patentability enunciated in this decision is applied in each case.

The proper test of obviousness is found in the four *Graham* inquiries.

These inquiries are determining the scope and content of the prior art, ascertaining the differences between the prior art and the claims at issue, resolving the level of ordinary skill in the pertinent art, and considering objective evidence present in the application indicating obviousness or non-obviousness. The issue to be resolved is whether these inquiries have been correctly considered and resolved.

It appears that the Examiner has erred in determining the scope and content of the prior art.

Regarding the primary reference, where the claim requires that the airbags be stored on the ceiling of the hull, the primary reference discloses that the airbags are stored in casings on the floor of their respective compartments.

Regarding the secondary reference, in addition to the requirements of claim 20, claim 21 requires that there is at least one slotted track for holding the at least one inflatable airbag in an uninflated condition and allowing the at least one inflatable airbag to expand. The Examiner equated this element with the median longitudinal member 41 found in the Tuffier reference.

The Tuffier reference teaches buoyant envelopes. One envelope of Tuffier is fixed to the longitudinal axis of the boat by means of a metal frame. Part of this metal frame is a median longitudinal member. Two flat metal rings are mounted on the median longitudinal member and are adapted to fix the frame to the keel of the boat. The median longitudinal member of Tuffier is not a slotted track for holding the inflatable airbag in an uninflated condition and allowing the airbag to expand. There is no appreciable relationship between the median longitudinal member of Tuffier and the slotted track of

the claim. Thus, it is considered that the Examiner has not properly resolved the first Graham factor.

It appears that the Examiner has not properly resolved the second Graham factor. The second Graham factor is ascertaining the differences between the prior art and the claim at issue. Since the Examiner has misinterpreted both the primary and the secondary reference, the Examiner's conclusion as to the differences between the claim and the references is in error.

The claims require that the inflatable airbags be stored on the ceiling of the hull. If the prior art was combined as suggested by the Examiner, the resulting system would have inflatable airbags in casings on the floor. Thus, one difference between claim 21 and the teachings of the references is the location of the flexible airbags. Also, the claim requires the presence of a slotted track for holding the airbag in the uninflated condition and allowing the airbag to expand. The median longitudinal member of the secondary reference does not hold the airbag and has no influence on the expansion of the airbag.

To determine whether these differences are such that appellant's invention as a whole would have been obvious to one of ordinary skill in the art, the next factual inquiry is to determine the level of skill possessed by one skilled in this art. In spite of Appellant's pleading for this determination to be made and communicated to Appellant so that Appellant could be assured that a decision as to obviousness was based on an objective standard, the Examiner has repeatedly chosen to refrain from making this determination. Is one of ordinary skill a passenger on a ship, a deck hand, a ship captain, or a nautical engineer?

Regarding the necessity of determining the level of ordinary skill in the pertinent art, the comments of the CAFC are pertinent and should be persuasive. The Fed. Cir. stated in the decision of *Ryko Manufacturing Co. v. Nu-Star, Inc.*, 21 USPQ2d 1053, 1057 (Fed. Cir. 1991):

Appellant asserts legal error in the failure of the district court to resolve the level of ordinary skill in the art. The importance of resolving the level of ordinary skill in the art lies in the necessity of maintaining objectivity in the obviousness inquiry. Instead of ascertaining what was subjectively obvious to the inventor at the time of invention, the court must ascertain what would have been objectively obvious to one of ordinary skill in the art at such time. Hence, the level of ordinary skill in the art is a factual question that must be resolved and considered. (Emphasis added.)

In order to apply an objective standard in determining the obviousness of Appellant's invention, it is necessary that this determination be made by the Examiner. In order to enable the Appellant to make a reasoned reply based on objective standards, the results of this determination should be conveyed to Appellant. This has not been done. Thus, the third factual inquiry required by the Graham decision has not been carried out.

The fourth Graham factual inquiry is considering objective evidence present in the application indicating obviousness or non-obviousness.

Section 706.02(j) of the M.P.E.P. discusses three basic criteria which must be met before a *prima facie* case of obviousness can be made out.

The first of these criteria spelled out by the M.P.E.P. is that there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to

combine the reference teachings. The Examiner has understandably not pointed to any suggestion or motivation in the references to combine the teachings of the references. No such suggestion or motivation exists. The “suggestion or motivation” relied upon by the Examiner is that the replacement of the bag of the secondary reference for the bag of the primary reference would be merely replacing one type of an airbag with another type of airbag, both of which can perform the function disclosed by the primary reference.

It appears that the Examiner has relied upon a *per se* rule in making this rejection. That is, the claim subject matter, according to the Examiner’s reasoning, is the result of a substitution of functional equivalents, therefore the claim is unpatentable. No reason need be given for the desirability of making the substitution. Such *per se* rules are not to be used. Rather, the statute is to be looked to as the guideline. See In re Ochiai et al, 37 USPQ2d 1127 (CAFC 1995), in this regard. Thus, it is considered that the Examiner has not met the requirement of pointing to some motivation or suggestion.

The second criterion is that there must be a reasonable expectation of success resulting from the suggested combination of references. According to the primary reference, when the airbag is charged with air, a relatively small lower end remains in the casing and a relatively large upper end of the bag extends out of the casing. The volume of the filled airbag can thus be several times the volume of the casing. If the references were combined as suggested by the Examiner, the length and breadth of the filled envelope could not exceed the size of the casing. The vessel would be no more unsinkable than if a watertight empty casing were attached to the floor of each compartment. Thus, the suggested substitution would not result in an expectation of success.

The third criterion is that the combination of references must teach or suggest all of the claim limitations. If the references are combined as suggested by the Examiner, the result would be a vessel having an engine and a hull having an interior and a ceiling, wherein the vessel further contained an air compressor and a compression chamber. Buoyant inflatable envelopes would be stored in casings on the floor. There would be a double-walled cover attached to the inflatable envelope and the cover would have a median longitudinal slot in the bottom layer to allow a frame to fit within the cover and attach to rings which would keep the envelope secured to the bottom of the casing.

This contrasts with the claim under consideration which requires that the airbag be located on the ceiling. Also, the claim requires the presence of a slotted track for holding the airbag in the uninflated condition and allowing the airbag to expand. The median longitudinal slot of the secondary reference does not hold the airbag and has no influence on the expansion of the airbag. This slot in the reference allows the uniting of a frame and rings so as to allow for the securing of the envelope to the keel of the vessel. It is thus apparent that the combination of the references as urged by the Examiner would not result in the subject matter of claim 21. In view of the above, it is urged that the rejection of claim 21 is in error.

Claim 22 will now be discussed. Claim 22 requires that at least one single airbag is deployed on the slotted track recited in claim 21 by at least one device which attaches the airbag to the slotted track on the interior of the hull. The comments regarding the four Graham factual inquiries set forth above are incorporated here by reference for the sake of condensing the record. Also, the discussion of Section 706.02(j) of the M.P.E.P. is incorporated here by reference. It is urged that these comments result in the

patentability of claim 21. According to the decision of In re Fine, 5 USPQ2d 1596 (Fed. Cir. 1988), when a broad independent claim is patentable over the prior art, a narrow dependent claim is also patentable over the prior art.

The Examiner stated that the device of claims 22 “would be similar to ring 26 of Tuffier”. This statement is clearly in error. The claims are to be read in light of the written disclosure and drawings, not in a vacuum. The written disclosure describing the slotted track is found in paragraph 60 and the appropriate drawings are Figs. 25 and 26. Thus, the subject matter of the claim bears no resemblance in appearance or function to the simple ring 26 of the secondary reference.

It appears to be the Examiner’s position that the device of the secondary reference will be placed in the casing disclosed by the primary reference. If this is done, the function of the rings 26 is avoided. The function of the rings is discussed in col. 4, lines 26-36 of the secondary reference. Their function is to fix the frame to tabs fixed to the keel bolts. Since the frame holding the expandable envelope will no longer be fixed to the keel, there is no need for the rings.

Claim 22 requires that the slotted track is situated on the interior of the hull. In accordance with the Examiner’ suggested combination of the references, the slotted track would be placed on the floor of a casing. Thus, this limitation is not taught or suggested.

It is thus urged that claim 22 is patentable.

Claim 23 will now be discussed.

Once more, the comments made above relating to the Graham factors and Section 706.02(j) of the M.P.E.P. are incorporated by reference to condense the record.

Additionally, the above comments relative to In re Fine are incorporated here by reference.

The claim in question requires the limitations of claim 21 and further requires that the vessel hull has inner and outer walls and that at least one airbag is deployed on the slotted track between the inner and outer walls of this double-walled hull. The Examiner took the position that the outer wall is the outer hull for the ship and the inner walls are the decks above compartments 12 and 13.

For claims to be properly examined, they must be properly interpreted. This does not allow for ascribing to words meanings that are completely foreign to them and obviously not intended by the author. Claims, even unambiguous claims, are best construed by looking beyond the wording of the claim to the written description and drawing to determine their meaning.

This is consistent with 37 CFR 1.75(d)(1), which holds:

The claim or claims must conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertained by reference to the description.

The Supreme Court held in *United States v. Adams* 178 USPQ 479 (Sup. Ct. 1966):

While the claims ...limit the invention, and specifications cannot be utilized to expand the patent monopoly...claims are to be construed in the light of the specifications and both are to be read with a view to ascertaining the invention.

In the decision of *Burlington Industries, Inc. v. Dayco Corp.*, 7 USPQ2d 1158 (Fed. Cir. 1988), it was stated:

In a classic statement, it is said that the inventor may be his own lexicographer.... But he must use his words consistently in the claims and in the specification.

Paragraph 62 in combination with Fig. 37 may be looked to ascertain the correct meaning of claim 23. Paragraph 62 teaches that:

In each of the embodiments, the inflatable bag **10** may be placed between the inner **50** and outer **52** walls of the hull **54** or may be placed in the open space of the interior of the vessel **2**.

Fig. 37 clearly shows the conventional double-walled hull having inner and outer walls. The written description holds that the inflatable bag may be placed between these two walls. The Examiner's interpretation of claim 23 to mean something else is, as best, a careless error.

Fig. 1 of Ryczek is inconclusive as to the location of the casing. The written text makes it clear, however, that the bags are carried in the several compartments of the ship. These compartments are described as being arranged in tiers within the ship. This does not imply between the inner and outer walls of the hull. In any event, it is not seen how the single embodiment of this reference can disclose the required features of both claims 22 and 23 wherein claim 22 requires that the bags be located on the interior of the hull and claim 23 requires that the bags be located between the inner and outer walls of the hull. It is noted that the Examiner has rejected both claims over the same disclosure.

It is considered that claim 23 has been improperly rejected.

As indicated above, the patentability of claim 24 will stand or fall with the patentability of claim 20.

The rejection of claim 26 will now be discussed.

Claim 26 depends upon claim 20, discussed above, and requires that the air compressor contains multiple overlapping impeller blades. The rejection relies upon Ryczek in view of the Day patent. For the reasons set forth above, it is considered that claim 20 is patentable. It is well-settled law that once a broad independent claim is patentable over the prior art, a narrow dependent claim is likewise patentable. See the decision of In re Fine, 5 USPQ2d 1596 (Fed. Cir. 1988), in this regard.

The discussion of the four Graham inquiries set forth above is incorporated here by reference. Also, as noted earlier, Section 706.02(j) of the M.P.E.P. sets forth three basic criteria which must be met before a *prima facie* case of obviousness can be made out.

The first of these criteria spelled out by the M.P.E.P. is that there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine the reference teachings. Again, the Examiner has understandably not pointed to any suggestion or motivation in the references to combine the teachings of the references. No such suggestion or motivation exists. The "suggestion or motivation" relied upon by the Examiner is that the replacement of the compressor of the secondary reference for the compressor of the primary reference would be merely replacing one way of compressing air with another way. Again, it appears that the Examiner has relied upon a *per se* rule in making this rejection. That is, the claim subject matter, according to the Examiner's reasoning, is the result of a substitution of functional equivalents, therefore the claim is unpatentable. No reason need be given for the desirability of making the substitution. Such *per se* rules are not to be used. Rather, the statute is to be looked to as the

guideline. See In re Ochiai et al, *supra*, in this regard. Thus, it is considered that the Examiner has not met the requirement of pointing to some motivation or suggestion.

The second criterion is that there must be a reasonable expectation of success resulting from the suggested combination of references. As the primary reference is not specific as to the type of compressor, it must be assumed that any type would be expected to be operative.

The third criterion is that the combination of references must teach or suggest all of the claim limitations. Claim 26, through claim 20, requires that at least one inflatable airbag is stored on the ceiling of the hull. As explained above, the primary reference discloses storing an inflatable airbag in a casing which is on the floor of a compartment. This teaching does not teach or suggest the claim limitation regarding the placement of the airbag. Thus, the combination of references, as suggested by the Examiner, cannot meet the third criterion required by the M.P.E.P., and it is considered that this rejection is improper.

Claim 27 will now be discussed.

Claim 27 further limits claim 20 in requiring that the air compressor is connected by an axle to a clutch device which is attached to an axle from the vessel's engine. Claim 27 is rejected under 35 USC 103(a) as being unpatentable over Ryczek in view of Gilbert.

As noted above, it is proper to consider the four Graham factors in making a determination of obviousness. In the process of considering the first Graham factor, it is proper to consider whether the cited prior art is analogous or non-analogous. It is Appellant's position that the art areas containing the Ryczek and Gilbert references are not analogous. It is deemed that one trying to solve a problem existing in the art directed

to keeping vessels afloat would not seek a solution to that problem in the art directed to propelling water sports enthusiasts. If the references are from non-analogous art areas, they are not properly combinable. If the references are not properly combined, the rejection is improper. For this reason, it is considered that the first Graham factor has not been met.

The second Graham factor is ascertaining the differences between the prior art and the claim at issue. Once more, the claim in issue, even though unambiguous, must be read in light of the written description and drawings. The claim speaks of two axles, one connecting the air compressor and the clutch device and one connecting the clutch device to the vessels engine. As shown in Fig. 29, these axles form a T-shape at the clutch. The Gilbert reference, on the other hand, shows only the single axle or drive shaft. This axle runs longitudinally. This difference has not been addressed or resolved.

The third Graham factor is the determination of the level of skill possessed by one of ordinary skill in the art. This issue is compounded as a different art area has been introduced. In the prior rejections, the level of skill in the art had not been determined and conveyed to appellant. In the present rejection, Appellant has been left at a loss as to the art area involved, let alone, the level of skill possessed by one of ordinary skill.

The fourth Graham factual inquiry is considering objective evidence present in the application indicating obviousness or non-obviousness.

We look to Section 706.02(j) for a consideration of this objective evidence.

The three criteria set out in this Section are 1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine the reference

teachings, 2) there must be a reasonable expectation of success resulting from the suggested combination of references, and 3) the combination of references must teach or suggest all of the claim limitations.

The Examiner fails to point to a suggestion found within the references to combine the references. Instead, he assumes that this combination would be obvious as it would allow for the separate operation of the propeller and the air compressor. Since the system of the primary reference already allows for the separate operation of the propeller and air compressor, it is not evident that a problem exists that needs to be solved by the Gilbert reference. Thus, no reason for combining the references is evident.

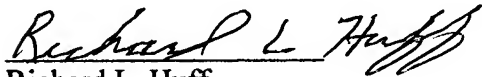
It is Appellant's view that there would be no reasonable expectation of success achieved by the combination of the references as suggested by the Examiner. The primary reference allows for the use of the ship's engine and the compressor, either alone or together as these elements are not connected in any manner. The claims allow for the operation of either of these elements, alone, or both together and allows the ship's engine to drive both the propeller and the compressor. The secondary reference makes it clear at col. 1, lines 55-65 that normally only one or the other of the water pump or the air compressor may be operated at any one time. It is the water pump that provides propulsion, as see co. 2, lines 59-62. It is desirable that the user have the option of using either the propulsion system alone, the compressor alone, or both in combination without special effort. It is especially desirable that the propulsion system can be used to provide power to the compressor. In the system of the secondary reference, a special hand grip is necessary in order for the propulsion system and the compressor to be used in

combination. Thus, one would not expect the combination of references to result in a successful apparatus.

The combination of references, as suggested by the Examiner, would not result in all of the claim limitations. Whereas the primary reference calls for an expandable bag inside a casing on the floor, the claim calls for an inflatable airbag stored on the ceiling of the hull. It is thus considered that the rejection of claim 27 is improper.

For the reasons set forth above, it is considered that the rejection of claims 20-24 and 26-28 is improper and should be reversed.

Respectfully Submitted,

A handwritten signature in cursive script, reading "Richard L. Huff". The signature is written in dark ink and is positioned above the printed name.

Richard L. Huff
33627 (301) 924 2169

9) Appendix

20. In a vessel having an engine and a hull having an interior and a ceiling, the improvement comprising a system which renders the vessel unsinkable, which system comprises:

- a) an air compressor which feeds air under pressure to a compression chamber,
- b) a compression chamber which feeds air under pressure to at least one inflatable airbag, and
- c) at least one inflatable airbag stored on the ceiling of the hull.

21. The vessel of claim 20, wherein there is at least one slotted track for holding the at least one inflatable airbag in an uninflated condition and allowing the at least one inflatable airbag to expand.

22. The vessel of claim 21, wherein at least one single airbag is deployed on the track by at least one device which attaches the airbag to the slotted track on the interior of the hull.

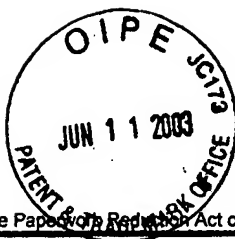
23. The vessel of claim 21, wherein the hull has inner and outer walls and the at least one single airbag is deployed on the slotted track by at least one device which attaches the airbag to the slotted track between the inner and outer walls of the hull.

24. The vessel of claim 20, wherein the vessel includes a sonar warning system for warning of potential harm to the vessel.

26. The vessel of claim 20, wherein the air compressor contains multiple overlapping impeller blades.

27. The vessel of claim 20, wherein the air compressor is connected by an axle to a clutch device which is attached to an axle from the vessel's engine.

28. The vessel of claim 20, wherein the at least one compression chamber is capable of holding air under pressure, a diaphragm makes up part of one wall of each compression chamber, and a time valve opens and closes at pre-determined intervals allowing pressurized air to be stored and released into the inflatable airbags.



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ENCLOSURES (check all that apply)

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<input type="checkbox"/> Status Letter
<input type="checkbox"/> Other Enclosure(s) (please identify below): |
|--|---|---|
- RECEIVED JUN 13 2003 GROUP 3600

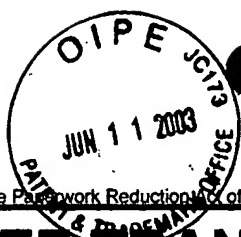
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Richard L. Huff
Signature	<i>Richard L. Huff</i>
Date	06/09/2003

CERTIFICATE OF MAILINGI hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231 on this date:

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FEE TRANSMITTAL for FY 2002

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT (\$) 160.00

Complete if Known

Application Number	10/055,331
Filing Date	01/25/2002
First Named Inventor	Lakram
Examiner Name	Basinger
Group Art Unit	3617
Attorney Docket No.	LAKR100

METHOD OF PAYMENT

1. ☐ The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:

Deposit Account Number
Deposit Account Name

☐ Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17

☒ Applicant claims small entity status. See 37 CFR 1.27

2. ☒ Payment Enclosed:

☐ Check ☒ Credit card ☐ Money Order ☐ Other

FEE CALCULATION

1. BASIC FILING FEE

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
101 740	201 370	Utility filing fee	
106 330	206 165	Design filing fee	
107 510	207 255	Plant filing fee	
108 740	208 370	Reissue filing fee	
114 160	214 80	Provisional filing fee	

SUBTOTAL (1) (\$) 0.00

2. EXTRA CLAIM FEES

Total Claims	Extra Claims	Fee from below	Fee Paid
Independent Claims	-20** =	X	
Multiple Dependent	-3** =	X	

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
103 18	203 9	Claims in excess of 20
102 84	202 42	Independent claims in excess of 3
104 280	204 140	Multiple dependent claim, if not paid
109 84	209 42	** Reissue independent claims over original patent
110 18	210 9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$) 0.00

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
105 130	205 65	Surcharge - late filing fee or oath	
127 50	227 25	Surcharge - late provisional filing fee or cover sheet	
139 130	139 130	Non-English specification	
147 2,520	147 2,520	For filing a request for ex parte reexamination	
112 920*	112 920*	Requesting publication of SIR prior to Examiner action	
113 1,840*	113 1,840*	Requesting publication of SIR after Examiner action	
115 110	215 55	Extension for reply within first month	
116 400	216 200	Extension for reply within second month	
117 920	217 460	Extension for reply within third month	
118 1,440	218 720	Extension for reply within fourth month	
128 1,960	228 980	Extension for reply within fifth month	
119 320	219 160	Notice of Appeal	
120 320	220 160	Filing a brief in support of an appeal	160.00
121 280	221 140	Request for oral hearing	
138 1,510	138 1,510	Petition to institute a public use proceeding	
140 110	240 55	Petition to revive - unavoidable	
141 1,280	241 640	Petition to revive - unintentional	
142 1,280	242 640	Utility issue fee (or reissue)	
143 460	243 230	Design issue fee	
144 620	244 310	Plant issue fee	
122 130	122 130	Petitions to the Commissioner	
123 50	123 50	Processing fee under 37 CFR 1.17(q)	
126 180	126 180	Submission of Information Disclosure Stmt	
581 40	581 40	Recording each patent assignment per property (times number of properties)	
146 740	246 370	Filing a submission after final rejection (37 CFR § 1.129(a))	
149 740	249 370	For each additional invention to be examined (37 CFR § 1.129(b))	
179 740	279 370	Request for Continued Examination (RCE)	
169 900	169 900	Request for expedited examination of a design application	

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 160.00

SUBMITTED BY

Name (Print/Type)	Richard L. Huff	Registration No. (Attorney/Agent)	33627	Telephone	(301) 924 2169
Signature	<i>Richard L. Huff</i>	Date	06/09/2003		

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